PATENT APPLICATION ENTITLED

"GENERIC REVENUE MANAGEMENT DATA MODEL FOR REVENUE MANAGEMENT"

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RELATED INFORMATION

[0001] This application claims priority under 35 U.S.C. § 119(e) to United States Provisional Patent Application number 60/239,448 filed October 11, 2000, entitled "Revenue Management (RM) Data Model," which is hereby fully incorporated by reference.

FIELD OF THE INVENTION

[0002] The present invention relates generally to revenue management, and more particularly to a generic revenue management data model for revenue management problems.

BACKGROUND OF THE INVENTION

[0003] Revenue management is an operations research technique that focuses on controlling access to inventory in order to maximize profit through, for example, contracting the supply or manipulating the price. Companies can employ revenue management to help select those demands for services that are profitable, while eschewing those that are costly. Revenue management can help a company determine which demands a company should accept now and which demands it should accept in the future.

[0004] Revenue management systems use various algorithms to facilitate the development of demand selection rules for a company. In the airline industry, for example, the Expected Marginal Seat Revenue ("EMSR") is a commonly employed algorithm used to help airlines determine how many seats can be sold in a particular fare class. In this context, a fare class does not necessarily represent the difference between the first-class and coach compartments, but can represent the difference between a last minute business traveler and an advance purchase leisure traveler in the same compartment. By using EMSR, airlines can better determine when and at what price tickets should be sold. Unfortunately, EMSR only allows for optimization at the local level and is not applicable to optimization at the network level.

[0005] Each algorithm or optimization scheme employed, whether it is EMSR or another algorithm, and whether it is employed in the airline industry or in an other industry, relies on a data model. Currently, the data models employed by revenue management are specific to the algorithm or industry to which they are used. For instance, the data model for EMSR would only include data on flights, compartments and fare classes. Thus, the revenue management data model currently employed by EMSR is specific to the airline industry and the EMSR algorithm.

[0006] Because current revenue management data models are algorithm or industry specific, they lack flexibility. Each different optimization scheme requires a unique revenue management data model, and new optimization schemes can not be easily integrated with existing revenue management data models. As a further limitation, algorithm specific revenue management data models do not easily facilitate the sequencing of algorithms.